



COPPER ELECTROLYTIC SOLUTION AND
ELECTROLYTIC COPPER FOIL PRODUCED THEREWITH

ABSTRACT

It is an object of the present invention to provide a copper electrolytic solution used to obtain a low-profile electrolytic copper foil with a low surface roughness on the rough side (the opposite side from the glossy side) in the production of an electrolytic copper foil using a cathode drum, and, more particularly, to provide a copper electrolytic solution used to obtain an electrolytic copper foil that has excellent transmission loss characteristics at a high frequency, can be finely patterned, and has excellent elongation and tensile strength, both at ordinary temperatures and high temperatures. The copper electrolytic solution of the present invention contains as additives (A) at least one quaternary amine salt selected from the group consisting of (a) quaternary amine salts obtained by a reaction between epichlorohydrin and an amine compound mixture composed of a secondary amine compound and a tertiary amine compound, and (b) polyepichlorohydrin quaternary amine salts, and (B) an organic sulfur compound.